

Claims

1. A method for configuring addresses in a packet switched data communication system, the method comprising:

providing a logical network with at least two network elements, a network element of the at least two network elements comprising at least one sub-element;

configuring a temporary address for an interface of a sub-element of the at least one sub-element;

retrieving an identifier of the network element; and

defining an address for the interface of the sub-element by including the identifier of the network element to the temporary address.

2. A method according to claim 1, wherein the configuring step comprises configuring a local link layer address for the interface of the sub-element.

3. A method according to claim 1, wherein the configuring step comprises configuring the temporary address for the interface of the sub-element based on hardware location information in the network element.

4. A method according to claim 1, wherein the configuring step comprises configuring the temporary address for the interface of the sub-element based on a module identifier of the sub-element.

5. A method according to claim 1, further comprising providing a control sub-element configured to access the identifier of the network element without a need to communicate with other network elements.

6. A method according to claim 5, further comprising storing the identifier of the network element in a memory of the control sub-element.

7. A method according to claim 5, wherein the retrieving step comprises retrieving the identifier of the network element from the control sub-element.

8. A method according to claim 1, wherein the retrieving step comprises retrieving the identifier of the network element using the temporary address as a unique address to carry out an automatic address resolution procedure locally in the network element.

9. A method according to claim 1, wherein the step of defining the address comprises defining a network layer address for the interface of the sub-element.

10. A method according to claim 1, further comprising blocking, inside an network element, all data packets lacking the identifier of the network element.

11. A method according to claim 1, further comprising enabling the interface of the sub-element for network element external communication at the earliest when the address for the interface of the sub-element is defined.

12. A method according to claim 1, further comprising retrieving a network portion identifying the logical network and continuing the address configuration by including the network portion to the address of the interface of the sub-element.

13. A method according to claim 1, wherein the providing step comprises providing a layer 2 switched local area network with at least two transceiver network elements, a transceiver network element of the at least two transceiver network element comprising a control module and at least one other module.

14. A computer program comprising program code means for performing any of the steps according to claim 1 when program code is run on a computing means.

15. A network element comprising:  
at least one sub-element;  
a configuring means configured to configure a temporary address for an interface of a sub-element of the at least one sub-element and to define an address for the interface of the sub-element by including an identifier of the network element retrieved by a retrieving means; and

the retrieving means configured to retrieve the identifier of the network element.

16. A network element according to claim 15, wherein the configuring means is configured to configure a local link layer address for the interface of the sub-element.

17. A network element according to claim 15, wherein the configuring means is configured to configure the temporary address based on hardware location information of the sub-element in the network element.

18. A network element according to claim 15, wherein the configuring means is configured to configure the temporary address based on a module identifier of the sub-element.

19. A network element according to claim 15, further comprising a control sub-element configured to access the identifier of the network element without a need to communicate with other network elements.

20. A network element according to claim 19, the control sub-element comprising a memory configured to store the identifier of the network element.

21. A network element according to claim 19, wherein the retrieving means is configured to retrieve the identifier of the network element from the control sub-element.

22. A network element according to claim 15, wherein the retrieving means is configured to retrieve the identifier of the network element using the temporary address as a unique address to carry out an automatic address resolution procedure locally in the network element.

23. A network element according to claim 15, wherein the configuring means is configured to configure a network layer address for the interface of the sub-element.

24. A network element according to claim 15, further comprising blocking means configured to block, inside the network element, all data packets lacking the identifier of the network element.

25. A network element according to claim 15, wherein the retrieving means is further configured to retrieve a network portion identifying a logical network and continuing an address configuration of the configuring means by including the network portion to the address of the interface of the sub-element.

26. A network element according to claim 16, wherein the link layer address is based on a 48-bit media access control identifier format.

27. A network element according to claim 23, wherein the network layer address is one of a link-local Internet Protocol version 6 address based on an EUI-64 identifier and an Internet Protocol version 4 address using a dynamic host configuration protocol.

28. A network element according to claim 15, the network element being a transceiver network element and comprising a control module and at least one other module.

29. A communication system comprising:  
a logical network comprising at least two network elements, a network element of the at least two network elements comprising at least one sub-element;  
a configuring means configured to configure a temporary address for an interface of a sub-element of the at least one sub-element and to define an address for the interface of the sub-element by including an identifier of the network element retrieved by a retrieving means;  
the retrieving means adapted to retrieve the identifier of the network element.